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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,792	11/26/2003	David J. Corisis	MICS:0045-1 (FLE/MAN)	1002
7590	12/28/2006		99	
Michael G. Fletcher Fletcher Yoder P.O. Box 692289 Houston, TX 77269-2289			EXAMINER CAZAN, LIVIUS RADU	
			ART UNIT 3729	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/28/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/723,792

Applicant(s)

CORISIS, DAVID J.

Examiner

Livius R. Cazan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16-18 and 22-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-18 and 22-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/26/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 16, 18, 22, 24-28, 30, 31, and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Song (US5776799 to Song et al.).

Song discloses:

- Fabricating a plurality of integrated circuit die on a wafer (step 100, Fig. 3; col. 3, lns. 55-65), as in claim 16
- Testing the integrated circuit die on the wafer to determine electrically good integrated circuit die (EDS testing; see col. 7, lns. 29-35), as in claims 16 and 26
- Producing a wafer map depicting the electrically good integrated circuit die (marking defective dies with ink; see col. 7, lns. 29-35), as in claims 16, 27, and 28
- Disposing an adhesive material onto only the electrically good integrated circuit die in accordance with the wafer map (col. 7, lns. 29-35), as in claims 16 and 26

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- Wherein disposing the adhesive comprises disposing an adhesive paste onto the electrically good integrated circuit die in accordance with the wafer map (col. 5, Ins. 43-55), as in claims 18 and 30
- Forming an integrated circuit package comprising the electrically good integrated circuit die (step 106-109, Fig. 3; col. 4, Ins. 34-41), as in claims 22 and 31, the circuit package being a lead-on-chip (LOC) package (see col. 3, Ins. 55-65), as in claims 24 and 33
- Wherein the acts are performed in the recited order, as in claim 25

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 17 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Song.

Song discloses the same invention as the applicant, except for employing an adhesive tape instead of a paste adhesive. Although Song is directed to employing a liquid adhesive (i.e. paste) as previously discussed, Song also discusses that it is known in the prior art to employ a double-sided adhesive tape to bond the die to the lead frame (see col. 1, Ins. 55-60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine this prior art teaching with Song's teaching of applying adhesive to only good dies, in order to not waste adhesive tape.

5. Claims 23 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Song in view of Jiang (US6524891).

Song discloses the same invention as the applicant, except for the circuit package being a board-on-chip (BOC) package.

It is readily apparent to anyone skilled in the art that the process of Song focuses on applying adhesive to the IC die on the substrate. Therefore the choice of packaging technology is purely a design consideration. Jiang teaches the manufacturing of both LOC and BOC packages (see Figs. 3 and 1 respectively), in both cases adhesive strips (10, 10B, Figs. 1 and 3) being utilized to bond the die to the leadframe or substrate.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the process of Song to form a BOC circuit package, since the BOC package is an art recognized equivalent package structure.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Livius R. Cazan whose telephone number is (571) 272-8032. The examiner can normally be reached on 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (571)272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LCR 12/20/06

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke at the end.

**PETER VO**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3700**